

129616

Page 1

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

Start Date: 2/20/15 **Start Qty:** 8.00 ***g***

Cust Item ID:

Required Date: 2/27/15 **Req'd Qty:** 8.00 ***8***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run	Start	*NR1*
	Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2662	Rev E

100

0.00

100

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Program part number and batch number.
Inspect part number and batch number are programmed

MACHINE AS PER FOLIO FB069 & DWG

DWG REV: **E**

FOLIO REV: 44

DAS
20 15-02-23
9-89

110

0.00

110

CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine Keyway and inspect per attached dimension sheet

DAS
20
9-89 15-02-23

Work Order ID 129616

129616

Page 3

February-20-15 7:57:53 AM

Item ID: D2662-2 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Saddle, RH Fwd, Aft, In
 Start Date: 2/20/15 Start Qty: 8.00 *8* Cust Item ID:
 Required Date: 2/27/15 Req'd Qty: 8.00 *8* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
-----	--	------	--	--	--	--	--	--	--

150

Powdercoat

Powder Coating

Memo

START TIME:

3:20 FINISH TIME:

0.00

OVEN TEMPERATURE:

4:10 9:25

15 -07 -09

160

QC3- Inspect Part Finish

0.00

160

QC

Quality Control

Memo

0.00

8

DAS

38

9-89

MAR 04 2015

170

Identify as per dwg & Stock Location:

0.00

170

Packaging

Packaging

Memo

0.00

8

MAR 04 2015

DAS

38

9-89

Work Order ID 129616***129616***

Page 4

February-20-15 7:57:53 AM

Item ID: D2662-2 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle, RH Fwd, Aft, In
Start Date: 2/20/15 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 2/27/15 Req'd Qty: 8.00 ***8*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

MLJ 15-03-05

15-3-5

Picklist Print

February-20-15 7:57:52 AM

Page 1

Work Order ID: 129616

129616

Parent Item: D2662-2

D2662-2

Parent Item Name: Saddle, RH Fwd, Aft, In

Start Date: 2/20/15

Required Date: 2/27/15

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP: C00.11.01Removed P/O for Powder Coat - in house
processEC

IPP REV:D

REDESIGN PER ENG ERROR 11-11-17 JLM VERIFIED BY:DD

IPP Rev:D As per Rev D 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D6101-001		Manufactured	No			100	Each	53.0000	1	8			
D6101-001									**			DAS	
Saddle Billet												44	
												9-89	15/02/20

Location

Loc Qty

Loc Code

MAT042

13

~~X~~ 114353

5

124413

8

MAT045

40

~~X~~ 115128

10

~~X~~ 122672

10

→ 125829

20

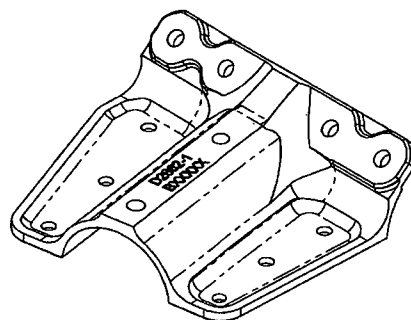
4

1

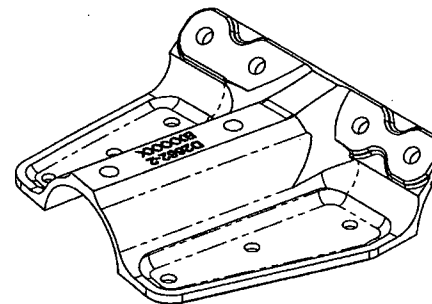
3

1

15-02-22



D2662-1 SADDLE, INSIDE, LH

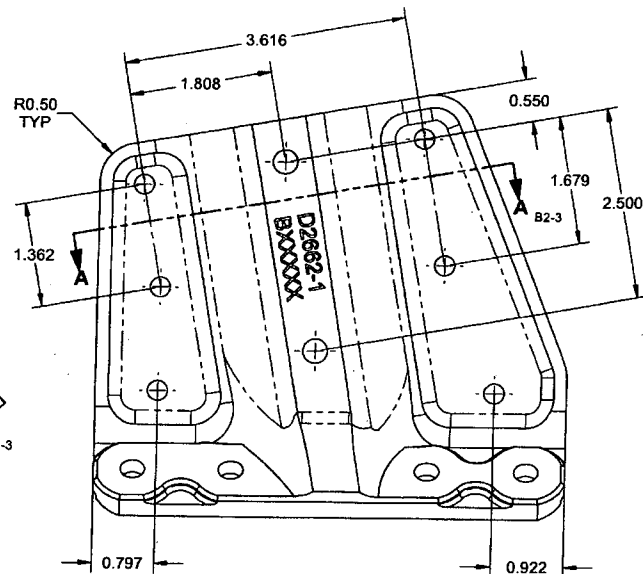
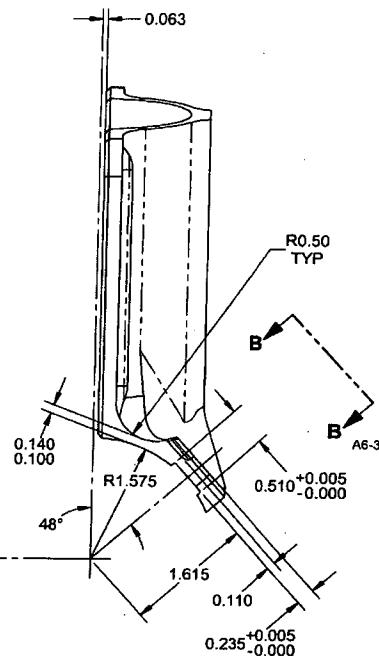
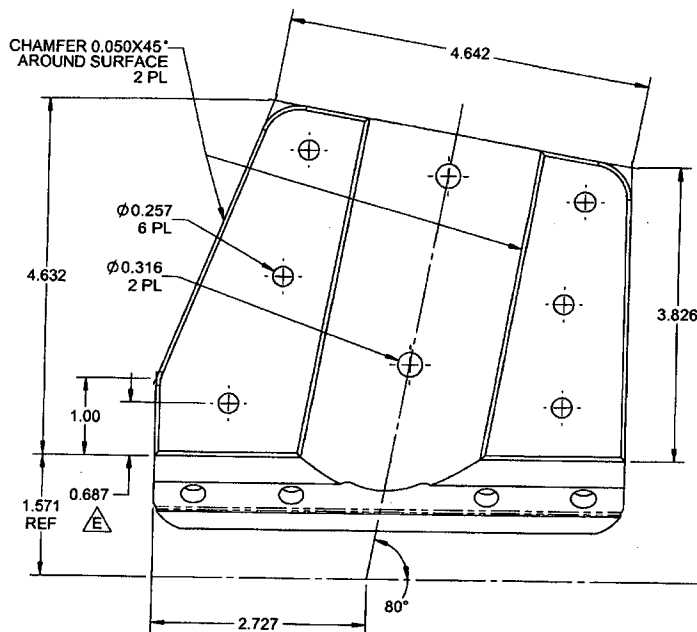


D2662-2 SADDLE, INSIDE, RH

*who
79616*

RELEASED
2011-11-16

E	REDRAW & REFORMAT DWG; 0.687 WAS 0.547 (B8-2,B5-4), REF NCR 11-935	CP	11.10.31
D	R0.188 WAS R0.30; Ø0.318 WAS Ø0.313	CB	06.11.08
C	INCORP DEO 9122/9102/9095/9137	CB	06.05.29
B	ANGLE AND NOTES ADDED	KE	97.07.11
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>GP</i>	DART AEROSPACE USA, INC.	
DRAWN	<i>GP</i>	KENT, WA	
CHECKED	<i>A.S.</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D2662	SHEET 1 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



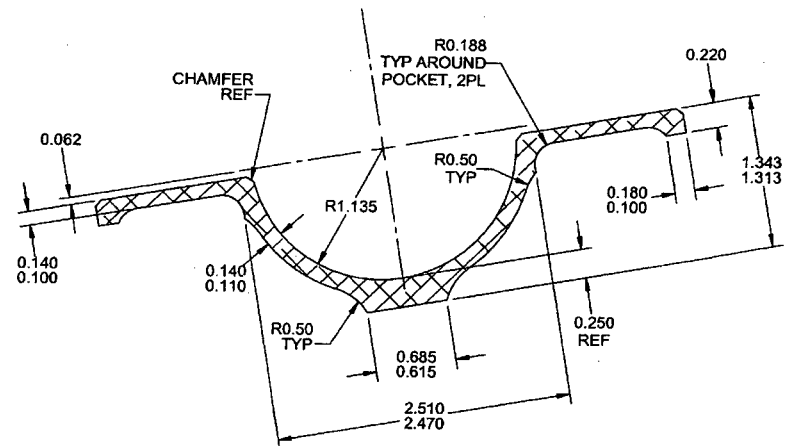
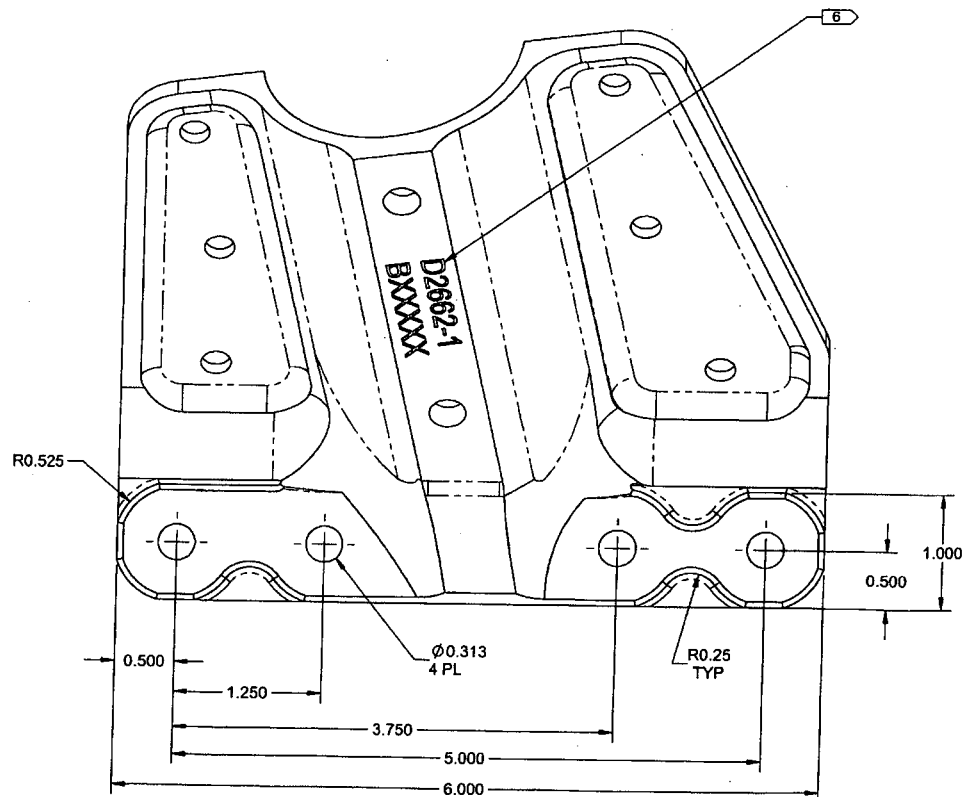
RELEASED
2011-11-16

D2662-1 SADDLE, INSIDE, LH

- 1) MATERIAL: 7075-T7351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209
MAKE FROM D6101-001 SADDLE BILLET
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010
- 7) WEIGHT: 0.66 lbs

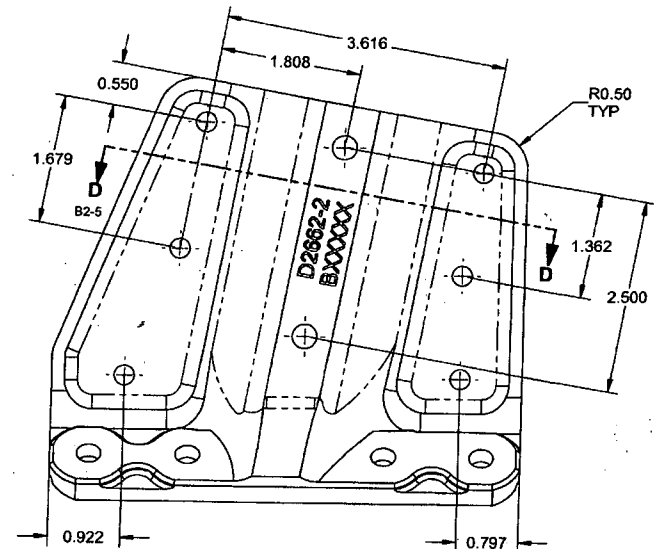
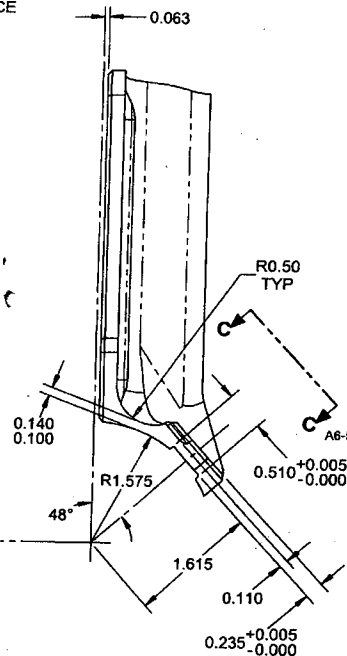
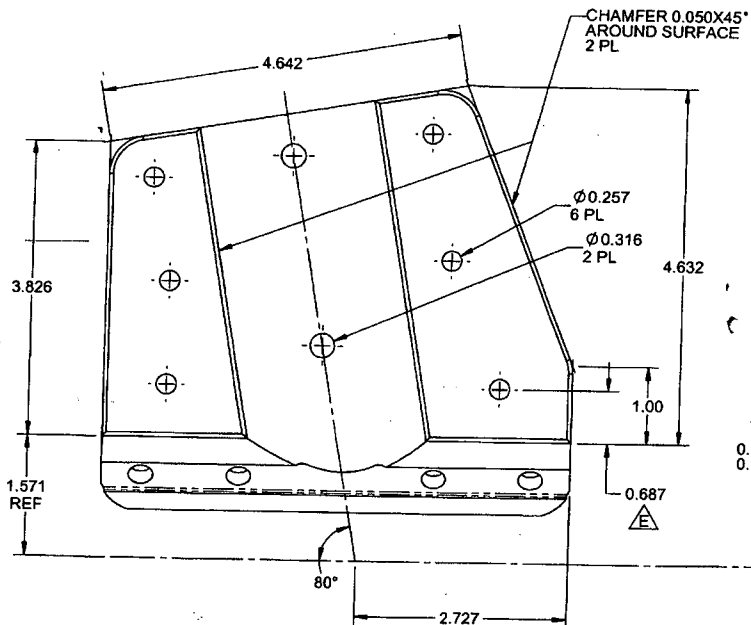
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO. D2662	REV. E
MFG. APPR.		SHEET 2 OF 5	
APPROVED		TITLE SADDLE, INSIDE	SCALE NTS
DE APPR.		DATE 11.10.31	

COPYRIGHT © 1997 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.



RELEASED
2011-11-16

DESIGN	92	DART AEROSPACE USA, INC.	
DRAWN	92	KENT, WA	
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

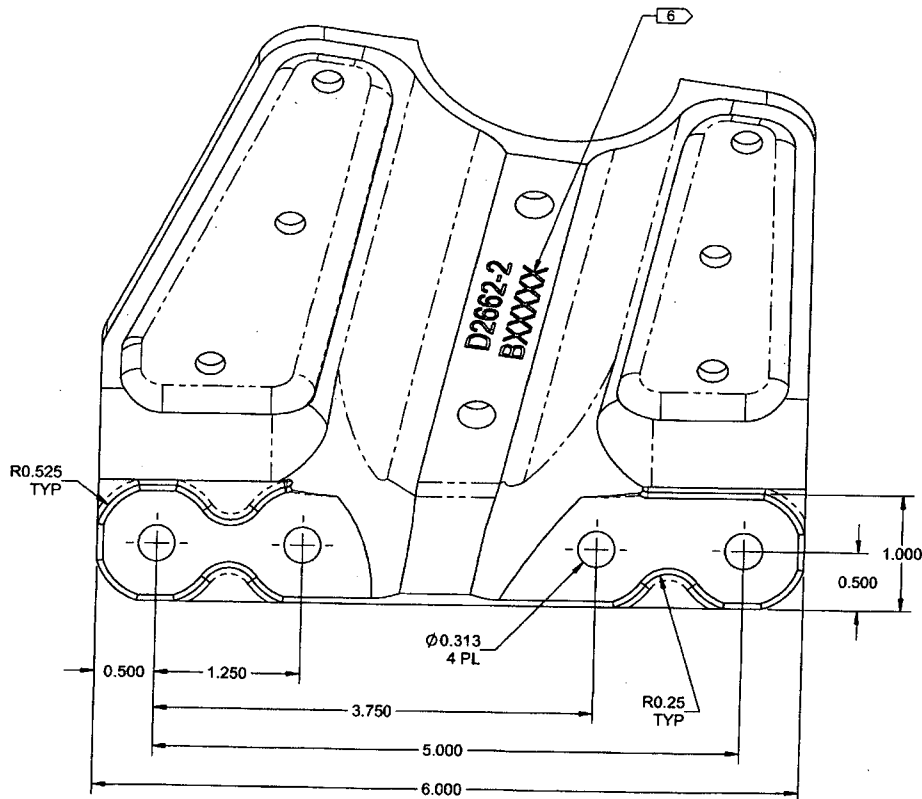


RELEASED
2011-11-16

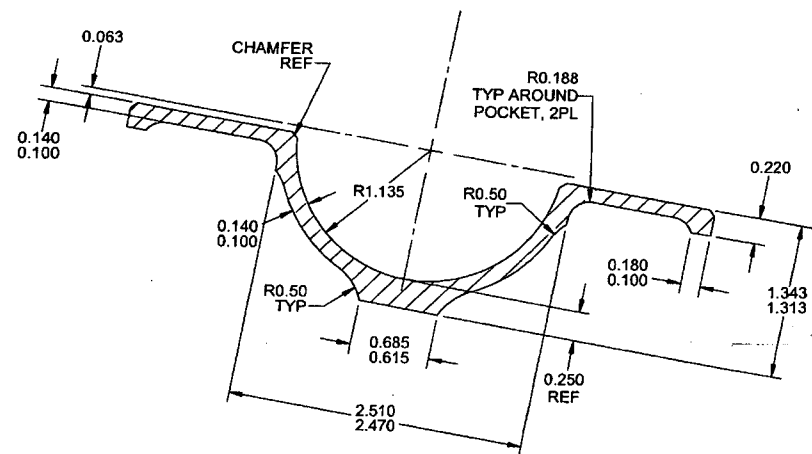
D2662-2 SADDLE, INSIDE, RH

- 1) MATERIAL: 7075-T7351 ALUMINUM PLATE PER QQ-A-250/12, AMS-QQ-A-250/12, OR ASTM B209
MAKE FROM D6101-001 SADDLE BILLET
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE GLOSS" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N AND B/N PER DART QSI 044 6.3 (CNC ENGRAVING)
USING MAX DEPTH OF 0.010 WITH MIN RADIUS OF 0.010
- 7) WEIGHT: 0.66 lbs

DESIGN	88	DART AEROSPACE USA, INC.	
DRAWN	88	KENT, WA	
CHECKED	AS	DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 4 OF 5
APPROVED	11/10/31	TITLE	SCALE
DE APPR.	#	SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



VIEW D-D
SCALE 1.5X B4-4
VIEW ROTATED



VIEW C-C
SCALE 1.5X C3-4

RELEASED
2011-11-16
AM

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D2662	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		SADDLE, INSIDE	NTS
DATE	11.10.31	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DART AEROSPACE LTD		Work Order: 12966
Description: 206 Saddle, Inboard, Left side		Part Number: D2662-2
Inspection Dwg: D2662	Rev: E	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	3.611	3.621		3.616	3.616	3.616	3.616	3.616
B	0.256	0.263		.258	.258	.258	.258	.258
C	0.315	0.322		.316	.316	.316	.316	.316
D	2.495	2.505		2.500	2.500	2.500	2.500	2.500
E	1.674	1.684		1.679	1.679	1.679	1.679	1.679
F	0.100	0.140		.125	.125	.125	.124	.124
G	0.210	0.230		.221	.221	.221	.220	.220
H	0.615	0.685		.685	.685	.685	.685	.685
I	2.470	2.510		2.490	2.490	2.490	2.490	2.490
J	1.313	1.343		1.323	1.323	1.323	1.323	1.323
K	0.178	0.198		.188	.188	.188	.188	.188
L	0.470	0.530		.500	.500	.500	.500	.500
M	1.125	1.145		1.140	1.1368	1.136	1.136	1.135
N	0.100	0.180		.140	.140	.140	.140	.140
O	0.100	0.140		.123	.128	.126	.126	.121
P	0.240	0.260		.246	.250	.248	.249	.248
Q	0.677	0.697		.686	.684	.686	.685	.685
R	0.540	0.560		.544	.546	.541	.543	.543
S	0.912	0.932		.919	.918	.917	.919	.917
T	0.787	0.807		.792	.793	.792	.792	.792
U	5.990	6.010		6.000	6.000	6.000	6.000	6.000
V	4.995	5.005		5.000	5.000	5.000	5.000	5.000
W	0.490	0.510		.496	.493	.490	.492	.490
X	0.312	0.319		.316	.314	.314	.314	.314
Y	0.990	1.010		.998	1.000	1.000	1.000	1.000
Z								
AA	1.245	1.255		1.250	1.250	1.250	1.250	1.250
AB	0.490	0.510		.498	.497	.498	.498	.498
AC	3.745	3.755		3.750	3.750	3.750	3.750	3.750
AD	0.100	0.140		.134	.134	.135	.135	.133
AE	0.235	0.240		.236	.238	.236	.236	.236
AF	0.510	0.515		.510	.510	.510	.510	.510
AG	0.100	0.120		.106	.108	.105	.105	.102
AH	1.565	1.585		1.580	1.5757	1.5746	1.5745	1.573
Accept/Reject							Scrap	

Measured by: 20 9-89	Date: 15-02-21
Audited by: F.K.	Date: 15/02/24
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
D	02.12.12	R-format; Added Dim. U-W & DT8683, DT8686 & DT8695 A/B	KJ/RF	
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	12.01.10	Revised per drawing revision E	KJ	
H	12.03.08	Dimension AH added, O revised	KJ	M

DART AEROSPACE LTD		Work Order: 22666
Description: 206 Saddle, Inboard, Left side		Part Number: D2662-2
Inspection Dwg: D2662	Rev: E	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				6 #	7 #	8 #	9 #	10 #
A	3.611	3.621		3.616	3.616	3.616	3.616	
B	0.256	0.263		.258	.258	.258	.258	
C	0.315	0.322		.316	.316	.316	.316	
D	2.495	2.505		2.500	2.500	2.500	2.500	
E	1.674	1.684		1.679	1.679	1.679	1.679	
F	0.100	0.140		.125	.124	.124	.124	
G	0.210	0.230		.221	.221	.221	.221	
H	0.615	0.685		.685	.685	.685	.685	
I	2.470	2.510		2.490	2.490	2.490	2.490	
J	1.313	1.343		1.323	1.323	1.323	1.323	
K	0.178	0.198		.188	.188	.188	.188	
L	0.470	0.530		.500	.500	.500	.500	
M	1.125	1.145		1.135	1.136	1.136	1.134	
N	0.100	0.180		.140	.140	.140	.140	
O	0.100	0.140		.122	.123	.122	.123	
P	0.240	0.260		.249	.248	.249	.250	
Q	0.677	0.697		.685	.685	.686	.686	
R	0.540	0.560		.545	.544	.544	.544	
S	0.912	0.932		.918	.919	.919	.919	
T	0.787	0.807		.792	.794	.794	.794	
U	5.990	6.010		6.000	6.000	6.000	6.000	
V	4.995	5.005		5.000	5.000	5.000	5.000	
W	0.490	0.510		.495	.495	.495	.492	
X	0.312	0.319		.314	.314	.314	.314	
Y	0.990	1.010		1.000	1.000	1.000	1.000	
Z								
AA	1.245	1.255		1.250	1.250	1.250	1.250	
AB	0.490	0.510		.498	.498	.499	.499	
AC	3.745	3.755		3.750	3.750	3.750	3.750	
AD	0.100	0.140		.132	.135	.135	.135	
AE	0.235	0.240		.237	.237	.236	.237	
AF	0.510	0.515		.510	.510	.510	.510	
AG	0.100	0.120		.107	.106	.104	.106	
AH	1.565	1.585		1.5736	1.5747	1.5747	1.5734	

DART Accept/Reject

Measured by: 20 9-89	Date: 15-02-21
Audited by: F.E.	Date: 15/02/24
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
D	02.12.12	R-format; Added Dim. U-W & DT8683, DT8686 & DT8695 A/B	KJ/RF	
E	06.07.05	Revised per drawing revision C	KJ/JLM	
F	07.03.21	Revised per drawing revision D	KJ/JLM	
G	12.01.10	Revised per drawing revision E	KJ	
H	12.03.08	Dimension AH added, O revised	KJ	AM

DOA:

Date: 15/03/19

DART
AEROSPACE

QA Closed:

Date: 15/3/19

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>129 616</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D2662-2</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>15-4609</u>		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15-02-22	110	1	Groove is over tolerance by .015" for the width R.C. operator enter wrong dimension No Reveal...	S 02/02/23 15/02/23	Moved to wrong position when putting the groove in the part Scrap & Replace B 125 829 \$231.44	DAS 20 9-89 15-02-22	B.A. 15/02/23	DAS 9 9-89 15-02-23
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator ☒									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General
☐ Bending	☐ Bend
☐ Centre Not Concentric	☐ BOM/Route
☐ Cracks	☐ Broken/Damage/Defect
☐ Crimp/Kink/Ripple/Wave	☐ Burrs
☐ Cuffs	☐ Contamination
☐ Crushing	☐ Countersink
☐ Heat Treat	☐ Cut Too Short
☐ Inspection Strip in Tube	☐ Drawing
☐ Marks/Chatter	☐ Drill Holes
☐ Turning Sequence	☐ Finish
☐ Wave/Twist in Tube	☐ Fit/Function
	☐ Folio/Program
	☐ Grain
	☐ Hardware
	☐ Inspection Incomplete/Unqualified
	☐ Instructions Incomplete/Unclear
	☐ Misaligned/off center
	☐ Mislabeled
	☐ Misread
	☐ Off-set
	☐ Out of Calibration
	☐ Out of Sequence
	☐ Outside Dimensions
	☐ Over/Under tolerance
	☐ Part Incorrect
	☐ Part Lost/Missing
	☐ Part Moved
	☐ Positioned Wrong
	☐ Power Loss/Surge
	☐ Pressure/Forced
	☐ Set-up
	☐ Temperature/Cure
	☐ Weld
	☐ Wrong Stock Pulled
	☐ Other